

SUBMISSION OF SUBSTITUTE DRAWINGS

Substitute drawing Sheets 3 and 4, are submitted herewith. The substitute drawings include changes to Figs. 6 and 7, changing the indication of element 5 to indicate elements 40 and 41, respectively.

It is respectfully submitted that the amendments to the drawings introduce no new matter within the meaning of 35 U.S.C. §132.

REMARKS

Reconsideration and withdrawal of the rejections set forth in the Office Action dated August 26, 2010, is respectfully requested in view of this amendment and the Remarks submitted November 24, 2010. By this amendment, the Specification has been amended, substitute drawing sheets 2 and 4 are submitted, and claims 1, 2 and 17 have been amended. Claims 1-5, 12 and 17 are pending in this application and presented for examination.

The amendments to the Specification correct a transposition of the descriptions of element numbers 40 and 41. The amendments made to claims 1 and 2 are believed to clarify the text therein and reflect proper antecedent basis. The amendment made to claim 17 describes the use of a parabolic mirror. It is respectfully submitted that the above amendments introduce no new matter within the meaning of 35 U.S.C. §132.

For the convenience of review by the Examiner, Appendix A shows markups of the claims representing a consolidation of Applicants' Amendment of November 24, 2010, and the present Supplemental Amendment.

CONCLUSION

In light of the previous amendment, Applicants submit that the application is in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner call the undersigned.

Respectfully submitted,
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December 22, 2010

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Appendix A
Claims Showing Markings of Amendment of November 24, 2010
Consolidated with the Present Supplemental Amendment

This listing of claims indicates amendments to the claim text made in Applicants' present Supplemental Amendment, consolidated with Applicants' Amendment November 24, 2010. Text entered in Applicants' Amendment November 24, 2010, but subsequently cancelled in the present Supplemental Amendment does not appear:

Listing of Claims:

1. (currently amended) A real-time monitoring apparatus for biochemical reaction, comprising:

a temperature control block comprising a thermoelectric element capable of supplying heat into reaction tubes and a heat transmission block which transmits the heat to the reaction tubes;
a light irradiation source comprising:

~~a lamp which irradiates light with uniform intensity~~ for irradiating to a sample
contained in at least one of the reaction tubes,

~~a condensing lens~~ at least one reflective mirror,

an optical waveguide which has an open structure with ~~a reflective mirror~~ said reflective mirror, said optical waveguide having a configuration that alters light path at both ends passing through at least one end of the optical waveguide and provides a uniform intensity of light,

an infra-red cutting filter filtering light transmitted through a light path that comprises said infra-red cutting filter, said reflective mirror and the optical waveguide and said infra-red cutting filter cutting infra-red from the lamp and a selective transmission filter for transmitting light selectively to monitor a reaction progress,

said light illuminating the sample with a uniform light intensity distribution as provided by the uniform intensity of light from the optical waveguide, and

a condensing lens positioned outside of a portion of a light path comprising said reflective mirror, the optical waveguide and the infra-red cutting filter; and
an optical system comprising a receiving part for receiving fluorescence transmitted through a second focusing lens, the fluorescence irradiated from the sample by the light emitted from the light irradiation source as transmitted through a light path comprising the optical waveguide, the selective transmission filter and a first focusing lens.

2. (previously presented) The real-time monitoring apparatus according to claim 1, wherein the lamp includes ~~a first~~ an ellipsoidal reflecting mirror or a parabolic mirror.

3. (original) The real-time monitoring apparatus according to claim 1, wherein the refractive index of medium of the optical waveguide is 1.35~2.0.

4. (original) The real-time monitoring apparatus according to claim 1, wherein the optical waveguide has a rectangular shape.

5. (previously presented) The real-time monitoring apparatus according to claim 1, wherein the cross-section of the optical waveguide has a round shape.

6-11. (canceled)

12. (amended November 24, 2010) The real-time monitoring apparatus according to ~~claim 1~~ claim 1, further comprising two or more ~~second reflecting~~ reflective mirrors ~~which positioned to alter light path after transmission from the light irradiation source.~~

13-16. (canceled)

17. (currently amended) The real-time monitoring apparatus according to claim 2, wherein the lamp including ~~an ellipsoidal reflecting mirror~~ a parabolic mirror further comprises [[a]] the first focusing lens.

18. (canceled).